Maximum Principles for Subharmonic Functions Via Local Semi-Dirichlet Forms

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Abstract. Maximum principles for subharmonic functions in the framework of quasi-regular local semi-Dirichlet forms admitting lower bounds are presented. As applications, we give weak and strong maximum principles for (local) subsolutions of a second order elliptic differential operator on the domain of Euclidean space under conditions on coefficients, which partially generalize the results by Stampacchia.